$\qquad$

| 11th February |  |
| :---: | :---: |
|  | Work out the size of $x$ |
| Solve the simultaneous equations $\begin{aligned} & x+2 y-4 z=-13 \\ & 7 x+4 y+6 z=14 \\ & 3 x-y+2 z=10 \end{aligned}$ |  |
| The curve C has equation $y=-x^{3}+12 x^{2}-36 x$ <br> Work out the coordinates of any stationary point on this curve and determine their nature |  |

